

**Amendments to the Claims:** This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1-16. (Canceled)

17. (Currently Amended) A process for the manufacture of a membrane, comprising the steps of

(i) forming a porous substrate by a process comprising the steps of

a. dispersing fibres in water to form a slurry;

b. depositing the slurry formed in step (a) onto a mesh bed to form a fibre network;

c. drying and compacting the fibre network formed in step (b); and

d. applying before or after step (c), to the fibre network, ~~before or after step (c)~~, a dispersion of a binder comprising both silica and a fluorinated polymer; and thereafter,

(ii) impregnating the fibre matrix substrate with a polymeric material to produce a membrane.

18. (Previously Presented) A process according to claim 17, wherein step (ii) is carried out by nip roller coating of the substrate to fill it with a solution of ion-conducting polymeric material, and further compaction and drying of the membrane.

19-22. (Canceled)

23. (Previously Presented) A process according to claim 17, wherein the fibres are randomly oriented in said porous substrate.

1                   24.     (Currently Amended) A ~~composite membrane according to claim 13,~~  
2     process according to claim 17, wherein the silica comprises a colloidal aqueous solution, or a  
3     silica powder dispersed in water.

4                   25.     (Currently Amended) A ~~composite membrane according to claim 13,~~  
5     process according to claim 17, wherein the fluorinated hydrocarbon polymer comprises one or  
6     more non-ion-conducting polymer(s).

1                   26.     (Currently Amended) A ~~composite membrane~~ process according to claim  
2     25, wherein the non-ion-conducting polymer is selected from the group consisting of  
3     polytetrafluoroethylene (PTFE), fluorinated ethylene-propylene (FEP), tetrafluoroethylene-  
4     ethylene (ETFE) copolymers, poly(vinylfluoride) (PVF) and poly(vinylidene fluoride) (PVDF).

1                   27.     (Currently Amended) A ~~composite membrane according to claim 13~~  
2     process according to claim 17, wherein the silica comprises a colloidal silica and the polymer  
3     comprises PTFE.

1                   28.     (Currently Amended) A ~~composite membrane according to claim 13,~~  
2     process according to claim 17, wherein the ratio of silica to polymer is in the range of from  
3     95:5% to 5:95% based on weight/weight solid materials in the binder mixture.

1                   29.     (Currently Amended) A ~~process composite membrane~~ according to claim  
2     28, wherein the ratio of silica to polymer is in the range of from 70:30% to 30:70% based on  
3     weight/weight solid materials in the binder mixture.

1                   30.     (Currently Amended) A ~~composite membrane~~ process according to claim  
2     29, wherein the ratio of silica to polymer is about 50:50% based on weight/weight solid  
3     materials in the binder mixture.

1                   31.     (Currently Amended) A ~~composite membrane according to claim 13,~~  
2     process according to claim 17, wherein the mixed binder is in the form of a dilute aqueous  
3     dispersion.

1                    32.    (Currently Amended) A ~~composite membrane~~ process according to claim  
2    31, wherein the dilute aqueous dispersion has about 10% weight solids in the aqueous solution.

1                    33.    (Currently Amended) A ~~composite membrane according to claim 13,~~  
2    process according to claim 17, wherein the fibres comprise at least one glass or silica.

1                    34.    (Currently Amended) A ~~composite membrane according to claim 13,~~  
2    process according to claim 17, wherein the fibres have a diameter in the range of from 0.1 $\mu$ m to  
3    50 $\mu$ m.